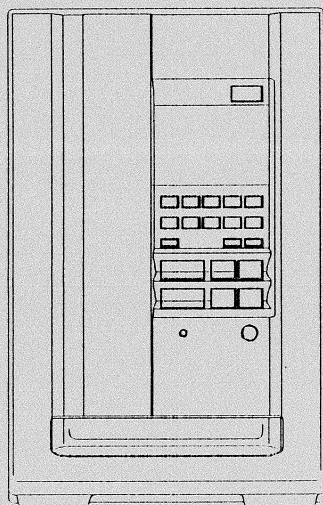


aiwa



DX-C100M



COMPACT DISC PLAYER

• CD CHANGER MECHANISM: 3ZG1-A1N

• TYPE:EEZ,HR

SERVICE MANUAL

SPECIFICATIONS

Disc	Compact disc
Scanning method	Non-contact optical scanner (semiconductor laser application)
Laser	Semiconductor laser ($\lambda = 750 - 800 \text{ nm}$)
Rotation speed	Approx. 500 rpm - 200 rpm (CLV)
Error correction	Cross Interleave, Reed Solomon code
No. of channels	2 channels
D-A converter	1-bit
Wow/Flutter	Unmeasurable
Signal to noise ratio	88 dB (1 kHz, 0 dB)
Harmonic distortion	0.03 % (1 kHz, 0 dB)
Low pass filter	4 times digital filter + active filter
Power consumption	16 W
Dimensions (W x H x D)	210 x 334.5 x 367.4 mm (8 ³ / ₈ x 13 ¹ / ₄ x 14 ¹ / ₂ in.)
Weight	6.4 kg (14 lbs 2 oz)

• Design and specifications are subject to change without notice.

ACCESSORIES/PACKAGE LIST

DESCRIPTIONで判断できない物は“REFERENCE NAME LIST”を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	カンパ NO.	DESCRIPTION
1	83-NM2-903-010	IB	ESFG1C(J)
2	83-NM2-601-010	RC	RC-C100M
3	87-034-786-019		CORD PIN 189-0760

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

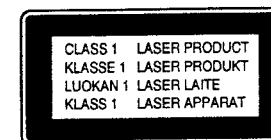
ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

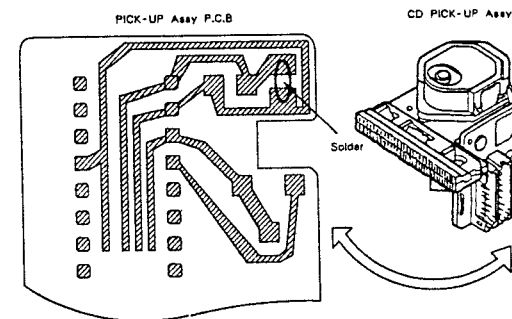
This Compact Disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the rear exterior.



Precaution to replace Optical block

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure to ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove the solder shown in the right figure.



DISASSEMBLY INSTRUCTIONS

1. How to remove the CAB, FR.

- 1) Remove PANEL, TRAY.
- 2) Loosen two screws (①×2) from the PANEL, REAR, and remove the 21-pin cable from the MAIN C.B.
- 3) Remove the 16-pin cable from the MECHA C.B.
- 4) Remove the 2-pin cable from the SNSR T C.B.
- 5) Remove the 8-pin cable from the SNSR B C.B.
- 6) Remove soldering from the JP C.B.
- 7) Remove four screws (⑧×1, ⑤×2, ④×1).
- 8) Unlock the three claws and remove the CAB, FR by pulling them in the direction of arrow ①.

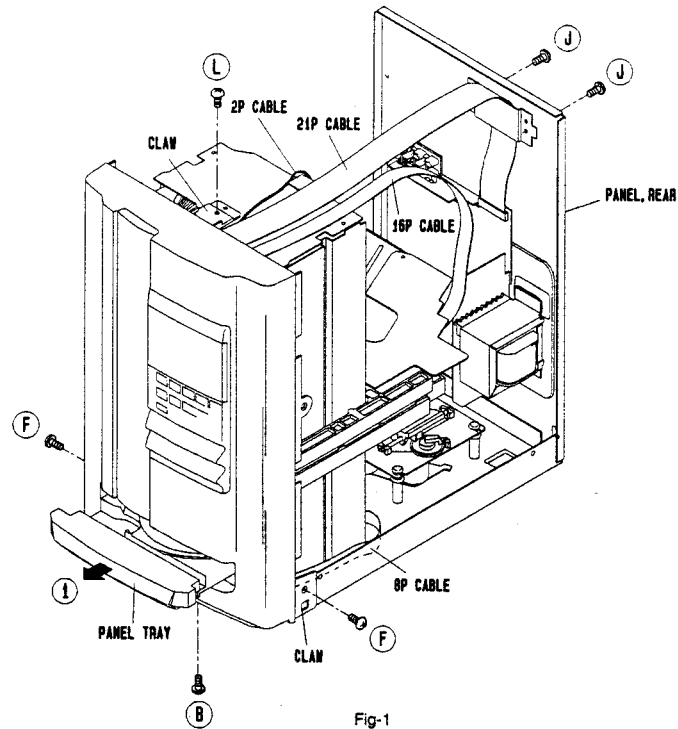


Fig-1

2. How to remove the ELEVATOR BLOCK.

- 1) Confirm that the LVR, PUSH are not pinched by the MAGAZINE. Then lift up the ELEVATOR BLOCK in the direction of arrow ①. (Fig-2)
- 2) Remove two screws (④×2) and remove the COVER, LED. (Fig-3)
- 3) Remove six screws (⑧×6) and one screw (④×1) as shown in Fig-3. Then disassemble the CHAS T ASSY and CHAS B ASSY as shown in Fig-3.

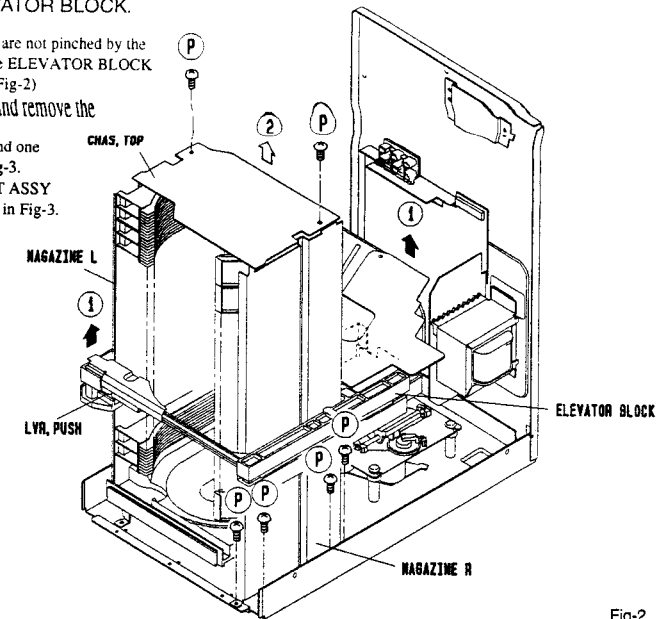


Fig-2

3. How to remove the MAGAZINE BLOCK (Fig-2).

- 1) Remove the two screws (⑥×2) and remove the CHAS, TOP in the direction of arrow ②.
- 2) Remove eight screws (L: ⑥×4, R: ⑥×4) and remove the MAGAZINE L and MAGAZINE R.

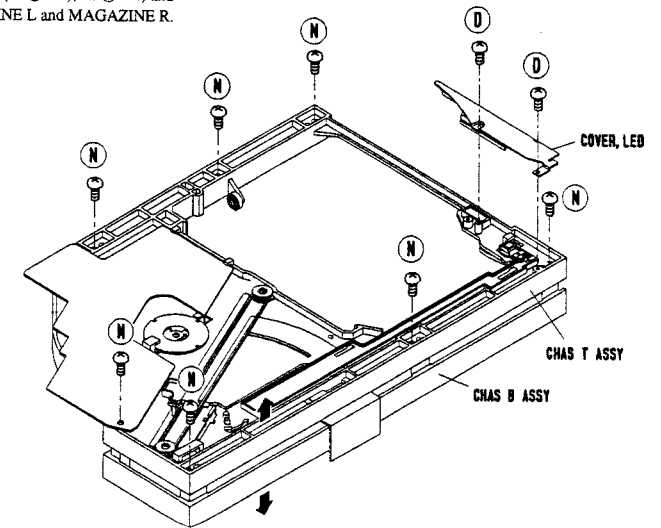


Fig-3

4. How to remove the TRAY BLOCK.

- 1) Open the TRAY. (Fig-4).
- 2) Remove two screws (B) (×2).
- 3) Remove the 5-pin cable from the SNSR B.C.B.
- 4) Move the TRAY BLOCK in the direction of arrow and remove it from the L-shaped slot.

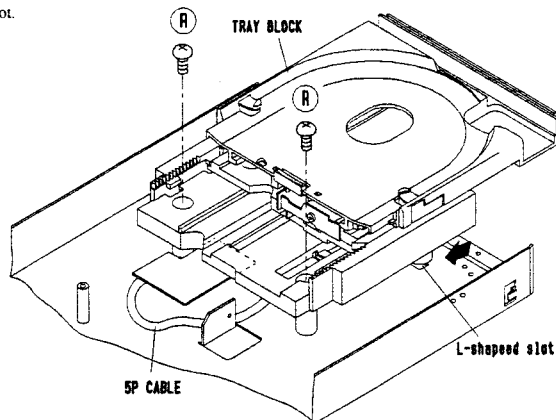


Fig-4

- 5) Remove the GEAR, T3 (×2). (Fig-5).
- 6) Remove the two screws (A) (×2) and remove the PLATE, STOP TRAY.
- 7) Move the TRAY in the direction of arrow ① and remove it.
- 8) Move the TRAY, SLIDE in the direction of arrow ② and remove them.

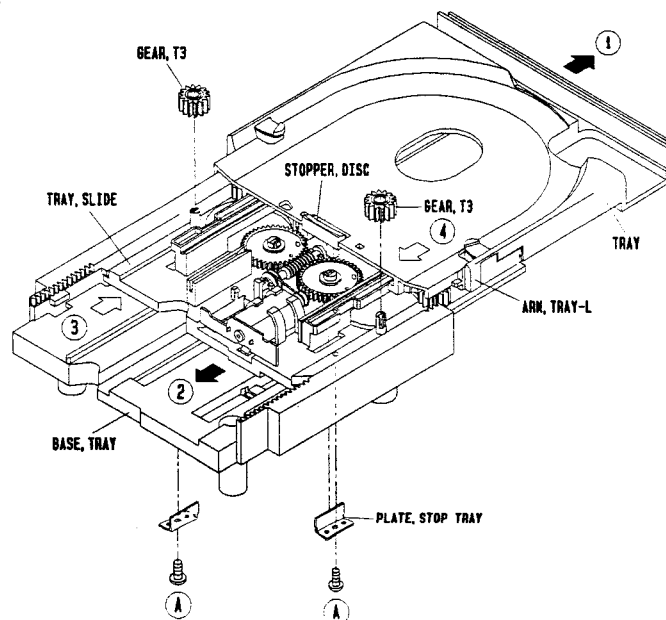


Fig-5

5. Cautions when re-assembling.

5-1. Cautions when re-assembling the ELEVATOR BLOCK.

- 1) Before assembling, align "A" and "B" shown in Fig-6, and adjust the rotating position of the SW. MODE. Then adjust position of "C" and "D", and adjust their phase.
- 2) When attaching the ELEVATOR BLOCK to the MAGAZINE BLOCK, confirm that the ELEVATOR BLOCK is inserted in horizontally level.

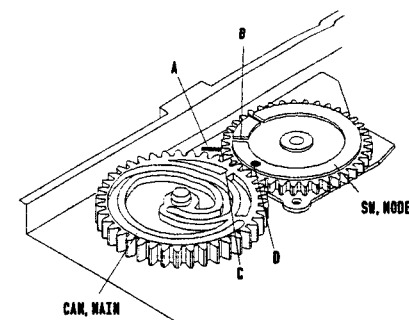


Fig-6

5-2. Cautions when re-assembling the TRAY BLOCK.

- 1) Align the GEAR, T1 and point "A" of the GEAR, PULLEY-T as shown in Fig-7. (When viewed from the top, slots of the GEAR, T1 and that of the TRAY, SLIDE must be aligned.)
- 2) Insert the TRAY, SLIDE on top of the BASE, TRAY in the direction of arrow ③. (Fig-5)
- 3) Align the respective gears positions as described in step1). While holding the TRAY's STOPPER, DISC up, insert the TRAY in the direction of arrow ④ while pushing ARM, TRAY-L outside. (Fig-5)
- 4) Attach the PLATE, STOP TRAY.
- 5) Pull out the TRAY as far as it goes out and attach the GEAR, T3 (×2).
- 6) Give enough play to the 5-pin cable as shown in Fig-8.
- 7) Insert the TRAY and confirm that ③ portion of the BASE, TRAY and TRAY SLIDE can be visible through the TRAY opening when viewed from the bottom. (Fig-9).

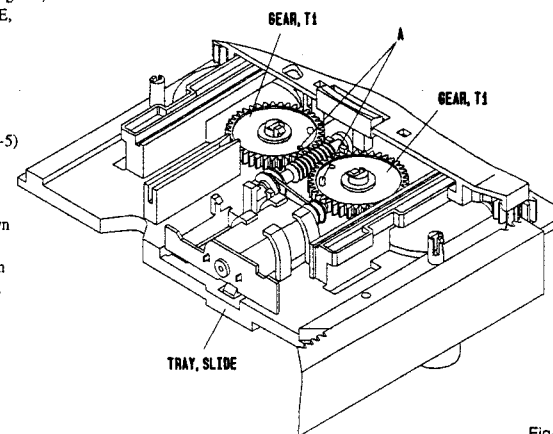


Fig-7

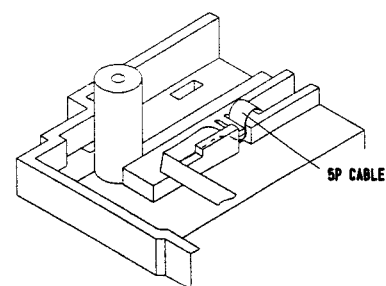


Fig-8

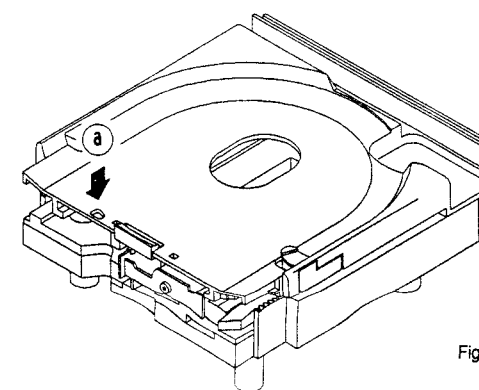


Fig-9

ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は“REFERENCE NAME LIST”を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	カリ NO.	DESCRIPTION	REF. NO	PART NO.	カリ NO.	DESCRIPTION
IC							
	87-002-877-080	IC, 8A10339F		C135	87-010-196-080	C-CAP, S 0.1-25 F	
	87-017-745-010	IC, CXA1782BQ		C136	87-010-197-080	C-CAP, S 0.01-25 B	
	87-017-801-080	IC, TA2058F		C137	87-010-263-080	CAP, E 100-10	
	87-017-806-010	IC, CXD 2518Q		C138	87-010-196-080	C-CAP, S 0.1-25 F	
	87-017-825-010	IC, GP1F32T		C139	87-010-196-080	C-CAP, S 0.1-25 F	
	87-017-585-080	IC, NJM4580E		C140	87-010-196-080	C-CAP, S 0.1-25 F	
	87-002-967-080	IC, BU40528F		C201	87-010-196-080	C-CAP, S 0.1-25 F	
	87-020-501-080	IC, TA78L005AP		C203	87-010-180-080	C-CAP, S 1500P-50 B	
	87-001-486-080	IC, ICP-N15		C204	87-010-197-080	C-CAP, S 0.01-25 B	
	87-001-196-080	IC, ICP-N10		C205	87-010-263-080	CAP, E 100-10	
	83-NM2-616-110	IC, UPD78044-121		C206	87-010-186-080	C-CAP, S 4700P-50 B	
	87-002-849-080	IC, NJM78L06A		C207	87-012-156-080	C-CAP, S 220P-50 CH	
	87-070-064-010	IC, SMA7029M		C208	87-010-400-080	C-CAP, S 0.47-50 SME	
	87-001-982-010	IC, TA7291S		C209	87-010-197-080	C-CAP, S 0.01-25 B	
	87-017-842-010	IC, 1SU0621L		C210	87-010-154-080	C-CAP, S 10P-50 CH	
TRANSISTOR							
	87-026-224-080	C-TR, DTC143XX		C211	87-010-314-080	C-CAP, S 22P-50 CH	
	89-327-125-080	C-TR, ZSC2712GR		C212	87-010-263-080	CAP, E 100-10	
	87-026-227-080	C-TR, DTA114EK		C213	87-010-197-080	C-CAP, S 0.01-25 B	
	89-110-155-080	TR, 2SA1015GR		C214	87-010-312-080	C-CAP, S 15P-50 CH	
	87-026-211-080	C-TR, DTA144EK		C215	87-010-318-080	C-CAP, S 47P-50 CH	
	87-026-210-080	C-TR, DTC144EK		C216	87-010-404-080	CAP, E 4.7-50 SME	
	89-318-156-080	TR, ZSC1815BL		C217	87-010-263-080	CAP, E 100-10	
	89-213-702-010	TR, ZSB1370E		C218	87-010-197-080	C-CAP, S 0.01-25 B	
	89-318-155-080	TR, ZSC1815GR		C219	87-010-196-080	C-CAP, S 0.1-25 F	
	89-213-293-080	TR, ZSB132SR		C223	87-012-140-080	C-CAP, S 470P-50 CH	
	87-026-235-080	C-TR, DTC114EK		C224	87-010-196-080	C-CAP, S 0.1-25 F	
	89-420-053-080	TR, ZSD2005R		C301	87-012-153-080	C-CAP, S 120P-50 CH	
	87-026-226-080	C-TR, DTA143EK		C302	87-012-153-080	C-CAP, S 120P-50 CH	
	87-026-464-080	TR, DTC114TS		C303	87-012-153-080	C-CAP, S 120P-50 CH	
				C304	87-012-153-080	C-CAP, S 120P-50 CH	
DIODE							
	87-020-465-080	DIODE, 1SS133		C305	87-012-153-080	C-CAP, S 120P-50 CH	
	87-001-574-080	DIODE, 1SR139-200		C306	87-012-153-080	C-CAP, S 120P-50 CH	
	87-017-174-080	ZENER, HZS11A3L		C307	87-012-153-080	C-CAP, S 120P-50 CH	
	87-017-144-080	ZENER, HZS24-2		C308	87-012-153-080	C-CAP, S 120P-50 CH	
	87-017-141-080	ZENER, HZS18-2		C309	87-012-153-080	C-CAP, S 120P-50 CH	
				C310	87-012-153-080	C-CAP, S 120P-50 CH	
				C311	87-010-186-080	C-CAP, S 4700P-50 B	
				C312	87-010-186-080	C-CAP, S 4700P-50 B	
				C313	87-016-093-080	C-CAP, TN 10-6.3 F95	
				C314	87-016-093-080	C-CAP, TN 10-6.3 F95	
MAIN C.B							
	87-010-182-080	C-CAP, S 2200P-50 B		C352	87-010-263-080	CAP, E 100-10	
	87-010-404-080	CAP, E 4.7-50 SME		C353	87-010-101-080	CAP, E 220-16 SME	
	87-010-197-080	C-CAP, S 0.01-25 B		C401	87-010-322-080	C-CAP, S 100P-50 CH	
	87-010-382-080	CAP, E 22-25 SME		C402	87-010-322-080	C-CAP, S 100P-50 CH	
	87-010-403-080	CAP, E 3.3-50 SME		C403	87-010-405-080	CAP, E 10-50 SME	
	87-010-213-080	C-CAP, S 0.015-50 B		C404	87-010-405-080	CAP, E 10-50 SME	
	87-010-197-080	C-CAP, S 0.01-25 B		C405	87-010-322-080	C-CAP, S 100P-50 CH	
	87-010-263-080	CAP, E 100-10		C406	87-010-322-080	C-CAP, S 100P-50 CH	
	87-010-196-080	C-CAP, S 0.1-25 F		C407	87-010-405-080	CAP, E 10-50 SME	
	87-010-197-080	C-CAP, S 0.01-25 B		C408	87-010-405-080	CAP, E 10-50 SME	
	87-010-186-080	C-CAP, S 4700P-50 B		C409	87-010-405-080	CAP, E 10-50 SME	
	87-010-186-080	C-CAP, S 4700P-50 B		C410	87-010-405-080	CAP, E 10-50 SME	
	87-010-146-080	C-CAP, S 2P-50 CH		C411	87-010-322-080	C-CAP, S 100P-50 CH	
	87-010-154-080	C-CAP, S 10P-50 CH		C412	87-010-322-080	C-CAP, S 100P-50 CH	
	87-010-263-080	CAP, E 100-10		C451	87-010-112-080	CAP, E 100-16	
	87-010-178-080	C-CAP, S 1000P-50 B		C452	87-010-197-080	C-CAP, S 0.01-25 B	
	87-010-198-080	C-CAP, S 0.022-25 B		C453	87-010-101-080	CAP, E 220-16 SME	
	87-010-197-080	C-CAP, S 0.01-25 B		C454	87-010-112-080	CAP, E 100-16 (HR)	
	87-010-263-080	CAP, E 100-10		C459	87-010-318-080	C-CAP, S 47P-50 CH	
	87-010-263-080	CAP, E 100-10		C460	87-018-209-080	CAP, TC-U 0.1-50 F	
	87-010-197-080	C-CAP, S 0.01-25 B		C801	87-016-495-090	CAP, E 3300-25 SMG	
	87-010-263-080	CAP, E 100-10		C802	87-012-140-080	C-CAP, S 470P-50 CH	
	87-010-197-080	C-CAP, S 0.01-25 B		C803	87-010-382-080	CAP, E 22-25 SME	
	87-010-197-080	C-CAP, S 0.01-25 B		C804	87-010-178-080	C-CAP, S 100P-50 B	
	87-010-197-080	C-CAP, S 0.01-25 B		C805	87-010-196-080	C-CAP, S 0.1-25 F	
	87-010-263-080	CAP, E 100-10		C806	87-010-263-080	C-CAP, S 0.1-25 F	
	87-010-196-080	C-CAP, S 0.1-25 F		C807	87-010-318-080	C-CAP, S 47P-50 CH	
				C808	87-010-318-080	C-CAP, S 47P-50 CH	
				C809	87-018-131-080	CAP, TC-U 1000P-50 B	
				C810	87-010-498-040	CAP, E 10-16 GAS	
				C811	87-018-131-080	CAP, TC-U 1000P-50 B	
				C812	87-018-131-080	CAP, TC-U 1000P-50 B	
				C815	87-010-178-080	C-CAP, S 1000P-50 B	
				C816	87-010-178-080	C-CAP, S 1000P-50 B	
				C817	87-010-178-080	C-CAP, S 1000P-50 B	
				C818	87-010-178-080	C-CAP, S 1000P-50 B	
				C820	87-010-178-080	C-CAP, S 1000P-50 B	
				C822	87-010-197-080	C-CAP, S 0.01-25 B	
				C825	87-018-209-080	CAP, TC-U 0.1-50 F	
				C826	87-018-134-080	CAP, TC-U 0.1-16 Y	
				C901	87-012-140-080	C-CAP, S 470P-50 CH	
				C902	87-010-182-080	C-CAP, S 2200P-50 B	
				C903	87-010-408-080	CAP, E 47-50 SME	
				C904	87-010-178-080	C-CAP, S 1000P-50 B	
				C905	87-010-182-080	C-CAP, S 2200P-50 B	
				C906	87-012-140-080	C-CAP, S 470P-50 CH	
				C907	87-010-197-080	C-CAP, S 0.01-25 B	
				C908	87-010-178-080	C-CAP, S 1000P-50 B	
				C909	87-010-553-040	CAP, E 47-16 GAS	
				C910	87-010-197-080	C-CAP, S 0.01-25 B	
				C911	87-010-553-040	CAP, E 47-16 GAS	
				C912	87-010-197-080	C-CAP, S 0.01-25 B	
				FL801	83-NM2-625-010	FL, 9-BT-145OK	
				LED801	87-017-350-080	LED, SEL1550CM	
				LED802	87-017-350-080	LED, SEL1550CM	
				LED803	87-017-350-080	LED, SEL1550CM	
				LED804	87-017-350-080	LED, SEL1550CM	
				SW801	87-036-215-080	SW, TACT EVO-21404M	
				SW802	87-036-215-080	SW, TACT EVO-21404M	
				SW803	87-036-215-080	SW, TACT EVO-21404M	
				SW804	87-036-215-080	SW, TACT EVO-21404M	
				SW805	87-036-215-080	SW, TACT EVO-21404M	
				SW806	87-036-215-080	SW, TACT EVO-21404M	
				SW807	87-036-215-080	SW, TACT EVO-21404M	
				SW808	87-036-215-080	SW, TACT EVO-21404M	
				SW809	87-036-215-080	SW, TACT EVO-21404M	
				SW810	87-036-215-080	SW, TACT EVO-21404M	
				SW811	87-036-215-080	SW, TACT EVO-21404M	
				SW812	87-036-215-080	SW, TACT EVO-21404M	
				SW813	87-036-215-080	SW, TACT EVO-21404M	

REF. NO.	PART NO.	カリ NO.	DESCRIPTION	REF. NO.	PART NO.	カリ NO.	DESCRIPTION
C701	87-010-247-080		CAP. E 100-50 SME	SW814	87-036-215-080		SW, TACT EVO-21404M
C702	87-010-247-080		CAP. E 100-50 SME	SW815	87-036-215-080		SW, TACT EVO-21404M
C703	87-010-408-080		CAP. E 47-50 SME	SW816	87-036-215-080		SW, TACT EVO-21404M
C704	87-010-408-080		CAP. E 47-50 SME	SW817	87-036-215-080		SW, TACT EVO-21404M
C705	87-010-405-080		CAP. E 10-50 SME	SW818	87-036-215-080		SW, TACT EVO-21404M
C706	87-010-401-080		CAP. E 1-50 SME	SW819	87-036-215-080		SW, TACT EVO-21404M
J301	87-009-395-010		JACK PIN 6P EARTH	SW820	87-036-215-080		SW, TACT EVO-21404M
L101	87-003-147-080		COIL 220H	SW821	87-036-215-080		SW, TACT EVO-21404M
R615	87-025-465-080		RES, INF 0.47-1/4WJ (HR)	W801	83-NM2-627-010		CABLE, FFCSP-1.25
R616	87-025-465-080		RES, INF 0.47-1/4WJ (HR)	X801	87-030-246-080		VIB, XTAL 4.19MHZ
SFR101	87-024-173-080		SFR, 22K DIA6 V	LED C.B			
SFR102	87-024-176-080		SFR, 100K DIA6 V	LED805	87-017-733-080		LED, SEL1250SM
SFR103	87-024-176-080		SFR, 100K DIA6 V	LED806	87-017-733-080		LED, SEL1250SM
W601	83-NM2-619-010		F-CABLE 7-2.0 200	LED807	87-017-733-080		LED, SEL1250SM
W701	83-NM2-617-110		CABLE FFC 21P-1.25	LED808	87-017-733-080		LED, SEL1250SM
W901	83-NM2-618-210		CABLE FFC 16P-1.25	LED809	87-017-733-080		LED, SEL1250SM
X201	87-030-347-080		VIB, XTAL 33.8688MHZ	LED810	87-017-350-080		LED, SEL1550CM
FRONT C.B				LED811	87-017-350-080		LED, SEL1550CM
C801	87-010-400-040		CAP. E 0.47-50 SME	LED812	87-017-350-080		LED, SEL1550CM
C802	87-010-405-040		CAP. E 10-50 SME	LED813	87-017-350-080		LED, SEL1550CM
C803	87-010-405-040		CAP. E 10-50 SME	LED814	87-017-350-080		LED, SEL1550CM
C804	87-010-260-040		CAP. E 47-25 SME	PT-1 C.B			
C805	87-016-088-040		CAP. E 220-6.3 SR	△	87-033-213-080		CLAMP, FUSE SMK
C806	87-018-134-080		CAP, TC-U 0.01-16 Y	△	82-304-743-010		TERMINAL, 1P
C807	87-010-318-080		C-CAP, S 47P-50 CH	△	87-016-043-090		CAP, E 3300-50 VR
C808	87-010-318-080		C-CAP, S 47P-50 CH	△	F651	87-035-145-010	FUSE, BS 350-1A (T) (EEZ)
C809	87-018-131-080		CAP, TC-U 1000P-50 B	△	F651	87-035-218-010	FUSE, T400-3A (HR)
C810	87-010-498-040		CAP, E 10-16 GAS	△	PT601	83-NM2-608-010	TRANS PT, E (EEZ)
C811	87-018-131-080		CAP, TC-U 1000P-50 B	△	PT601	83-NM2-608-010	TRANS PT, H (HR)
C812	87-018-131-080		CAP, TC-U 1000P-50 B	△	SW601	87-036-409-010	SW, RTRY HXW1219 (HR)
C815	87-010-178-080		C-CAP, S 1000P-50 B	TR C.B			
C816	87-010-178-080		C-CAP, S 1000P-50 B	MECHA C.B			
C817	87-010-178-080		C-CAP, S 1000P-50 B	SW1	87-036-269-080		SW, PUSH ESE102MH1
C818	87-010-178-080		C-CAP, S 1000P-50 B	SW2	87-036-312-080		C-SW, PUSH 102MH4
C820	87-010-178-080		C-CAP, S 1000P-50 B	ILLUM C.B			
C822	87-010-197-080		C-CAP, S 0.01-25 B	D11	87-070-128-010		LED, SEL4828A
C825	87-018-209-080		CAP, TC-U 0.1-50 F	D12	87-070-128-010		LED, SEL4828A
C826	87-018-134-080		CAP, TC-U 0.01-16 Y	D13	87-070-128-010		LED, SEL4828A
C901	87-012-140-080		C-CAP, S 470P-50 CH	MOT ELV C.B			
C902	87-010-182-080		C-CAP, S 2200P-50 B	M1	87-145-369-010		MOT, FF-050SH-09250
C903	87-010-408-080		CAP. E 47-50 SME	SNSR MOT C.B			
C904	87-010-178-080		C-CAP, S 1000P-50 B	PS41	87-026-583-080		P-SNSR, NUL5183K-F10
C905	87-010-182-080		C-CAP, S 2200P-50 B	SW TRAY C.B			
C906	87-012-140-080		C-CAP, S 470P-50 CH	SW31	87-036-269-080		SW, PUSH ESE102MH1
C907	87-010-197-080		C-CAP, S 0.01-25 B	SW32	87-036-312-080		C-SW, PUSH 102MH4
C908	87-010-178-080		C-CAP, S 1000P-50 B	MOT TRAY C.B			
C909	87-010-553-040		CAP. E 47-16 GAS	M2	87-145-369-010		MOT, FF-050SH-09250
C310	87-010-197-080		C-CAP, S 0.01-25 B	ADJ ELV C.B			
C911	87-010-553-040		CAP. E 47-16 GAS	PS61	87-026-628-010		P-SNSR, TLP801A
C912	87-010-197-080		C-CAP, S 0.01-25 B	SNSR B.C.B			
FL801	83-NM2-825-010		FL 9-BT-1450K				
LED801	87-017-350-080		LED, SEL1550CM				
LED802	87-017-350-080		LED, SEL1550CM				
LED803	87-017-350-080		LED, SEL1550CM				
LED804	87-017-350-080		LED, SEL1550CM				
SW801	87-036-215-080		SW, TACT EVO-21404M				
SW802	87-036-215-080		SW, TACT EVO-21404M				
SW803	87-036-215-080		SW, TACT EVO-21404M				
SW804	87-036-215-080		SW, TACT EVO-21404M				
SW805	87-036-215-080		SW, TACT EVO-21404M				
SW806	87-036-215-080		SW, TACT EVO-21404M				
SW807	87-036-215-080		SW, TACT EVO-21404M				
SW808	87-036-215-080		SW, TACT EVO-21404M				
SW809	87-036-215-080		SW, TACT EVO-21404M				
SW810	87-036-215-080		SW, TACT EVO-21404M				
SW811	87-036-215-080		SW, TACT EVO-21404M				
SW812	87-036-215-080		SW, TACT EVO-21404M				
SW813	87-036-215-080		SW, TACT EVO-21404M				

REF. NO	PART NO.	カブリ NO.	DESCRIPTION
C72	87-010-196-080		C-CAP. S 0.1-25 F
C73	87-010-178-080		C-CAP. S 1000P-50 B
C74	87-010-178-080		C-CAP. S 1000P-50 B
C75	87-010-178-080		C-CAP. S 1000P-50 B
C76	87-010-178-080		C-CAP. S 1000P-50 B
C79	87-010-197-080		C-CAP. S 0.01-25 B
C80	87-010-178-080		C-CAP. S 1000P-50 B
Q73	87-026-666-010		P-TR. PT361
SFR71	87-024-520-080		SFR. 1K DIA6 V NTP
W1	83-ZG1-614-110		CABLE. FFC 1.25-5P

REF. NO	PART NO.	カブリ NO.	DESCRIPTION
SNSR T C. B			
D51	83-XA2-672-010		LED. S1D1010CM
MOTOR C. B			
M20	9X-262-513-210		SLED MOTOR ASSY
M21	9X-262-513-210		SLED MOTOR ASSY
P1N501	91-564-721-110		CONNECTOR 5P
SW1	91-572-085-110		LEAF SW

JP C. B

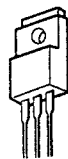
TRANSISTOR ILLUSTRATION



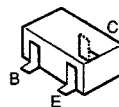
2SA1015
2SC1815



2SB1329
2SD2005



2SB1370

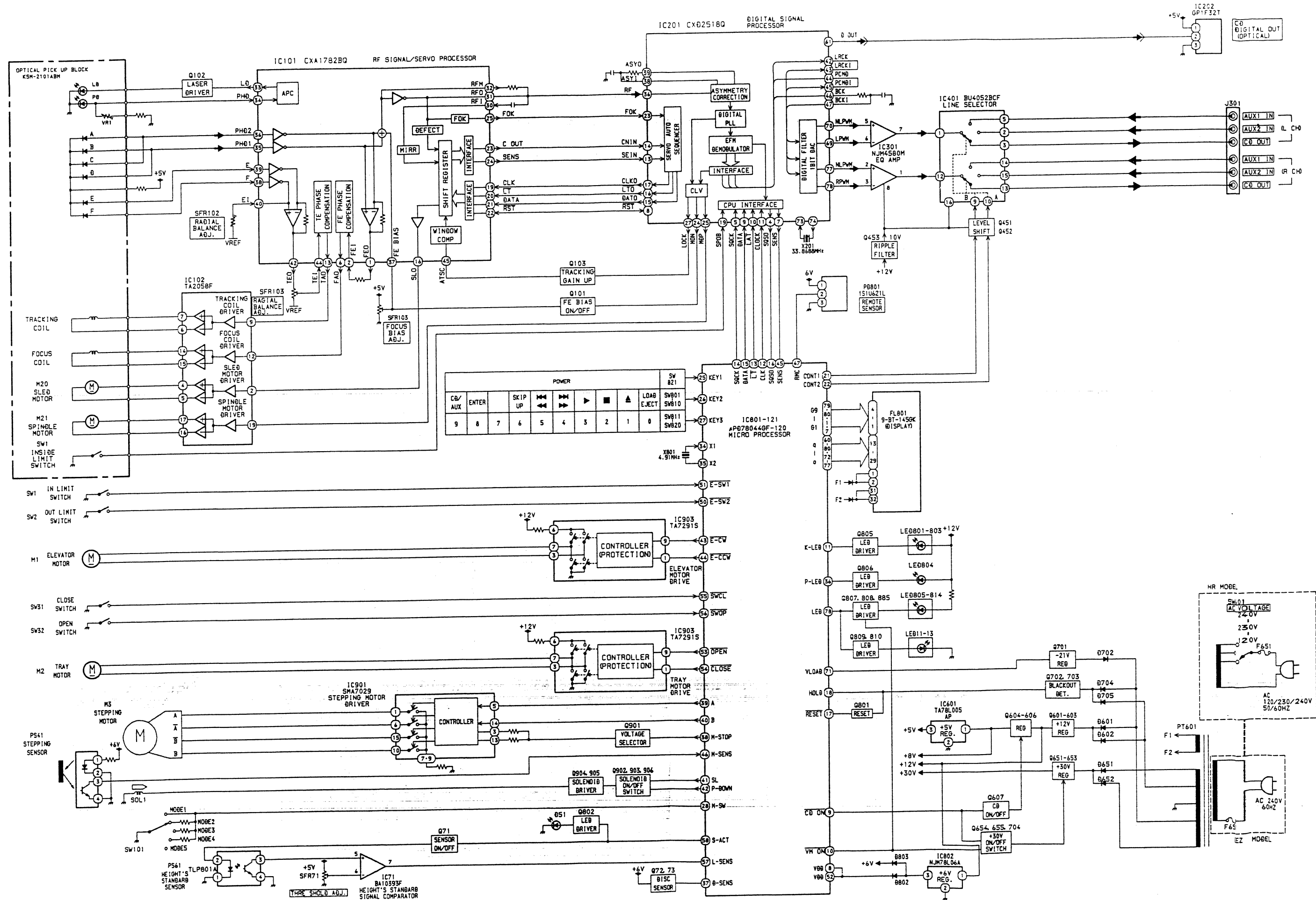


2SC2712
DTA114EK
DTA143EK
DTA144EK
DTC114EK
DTC143XK
DTC144EK



DTC114TS

BLOCK DIAGRAM





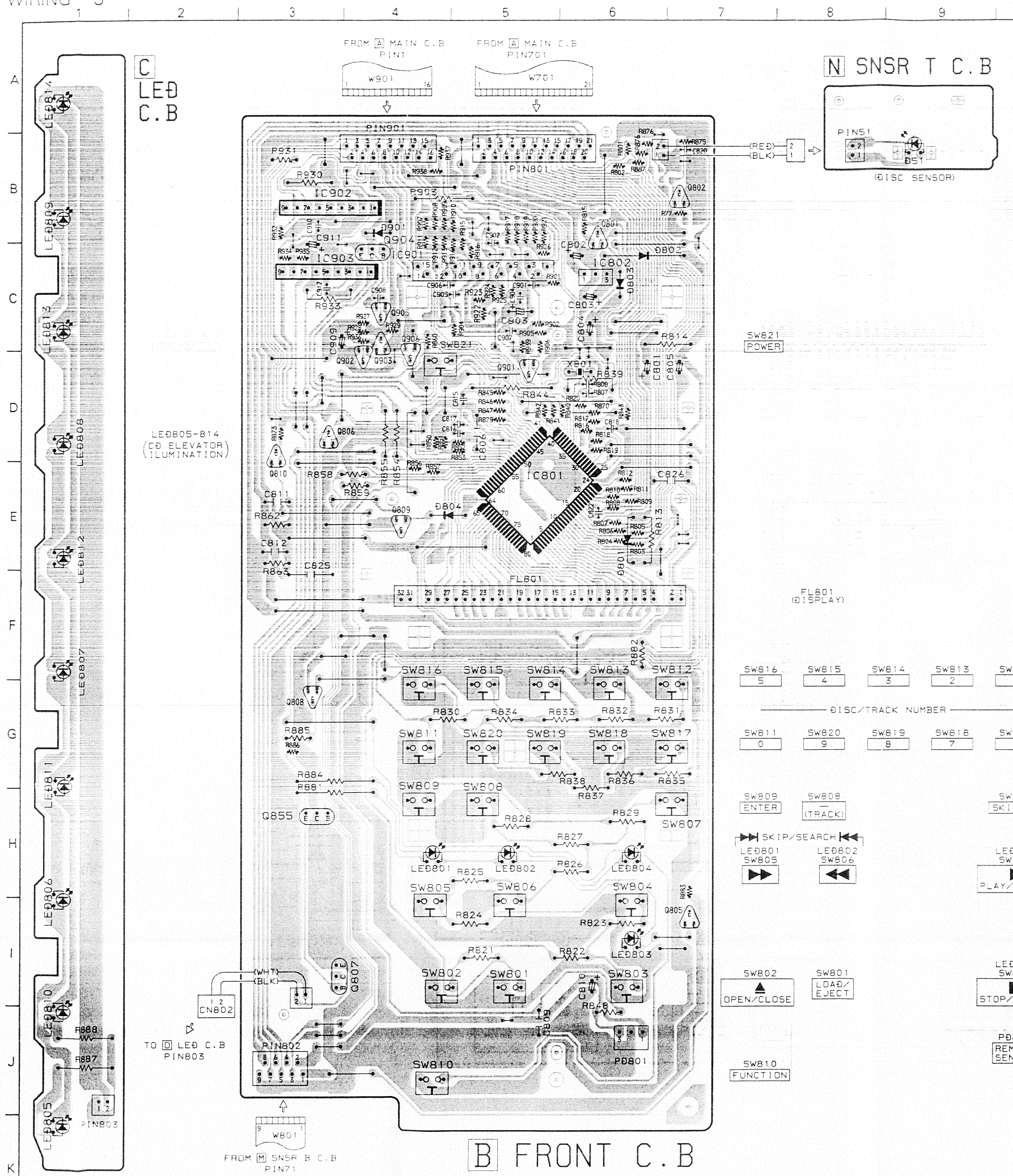
A MAIN C.B.

IC202 GP1552T
RIPPLE FILTER
10.0V
ZC1815
IC301 EQ AMP
IC301 EQ AMP
LINE SELECTOR
LEVEL SHIFTER
AUX1 IN
AUX2 IN
CD OUT
DIGITAL OUT (OPTICAL)

B FRONT C.B. PIN801

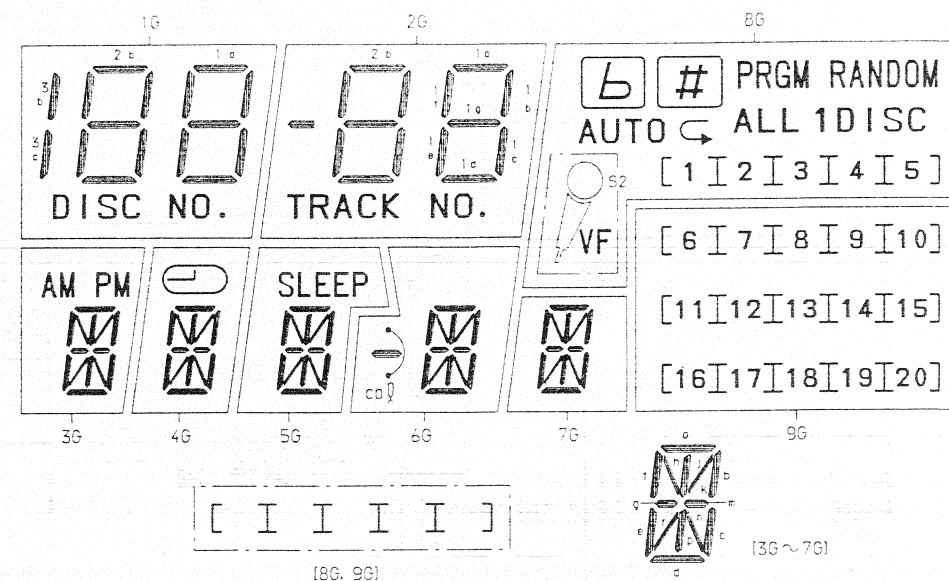
IC201 CX925180 DIGITAL SIGNAL PROCESSOR & A/D CONVERTER
IC202 CX925181 ANALOG PROCESSOR
IC203 CX925182 FOCUS TRACKING COIL DRIVER
IC204 CX925183 SLEW SPINDLE MOTOR DRIVER
IC205 CX925184 SPINDLE MOTOR
IC206 CX925185 INSIDE LIMIT SWITCH
IC207 CX925186 SPINDLE MOTOR
IC208 CX925187 INSIDE LIMIT SWITCH
IC209 CX925188 SPINDLE MOTOR
IC210 CX925189 INSIDE LIMIT SWITCH
IC211 CX925190 SPINDLE MOTOR
IC212 CX925191 INSIDE LIMIT SWITCH
IC213 CX925192 SPINDLE MOTOR
IC214 CX925193 INSIDE LIMIT SWITCH
IC215 CX925194 SPINDLE MOTOR
IC216 CX925195 INSIDE LIMIT SWITCH
IC217 CX925196 SPINDLE MOTOR
IC218 CX925197 INSIDE LIMIT SWITCH
IC219 CX925198 SPINDLE MOTOR
IC220 CX925199 INSIDE LIMIT SWITCH
IC221 CX925200 SPINDLE MOTOR
IC222 CX925201 INSIDE LIMIT SWITCH
IC223 CX925202 SPINDLE MOTOR
IC224 CX925203 INSIDE LIMIT SWITCH
IC225 CX925204 SPINDLE MOTOR
IC226 CX925205 INSIDE LIMIT SWITCH
IC227 CX925206 SPINDLE MOTOR
IC228 CX925207 INSIDE LIMIT SWITCH
IC229 CX925208 SPINDLE MOTOR
IC230 CX925209 INSIDE LIMIT SWITCH
IC231 CX925210 SPINDLE MOTOR
IC232 CX925211 INSIDE LIMIT SWITCH
IC233 CX925212 SPINDLE MOTOR
IC234 CX925213 INSIDE LIMIT SWITCH
IC235 CX925214 SPINDLE MOTOR
IC236 CX925215 INSIDE LIMIT SWITCH
IC237 CX925216 SPINDLE MOTOR
IC238 CX925217 INSIDE LIMIT SWITCH
IC239 CX925218 SPINDLE MOTOR
IC240 CX925219 INSIDE LIMIT SWITCH
IC241 CX925220 SPINDLE MOTOR
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IC263 CX925242 SPINDLE MOTOR
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IC269 CX925248 SPINDLE MOTOR
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IC273 CX925252 SPINDLE MOTOR
IC274 CX925253 INSIDE LIMIT SWITCH
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IC277 CX925256 SPINDLE MOTOR
IC278 CX925257 INSIDE LIMIT SWITCH
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IC283 CX925262 SPINDLE MOTOR
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IC293 CX925272 SPINDLE MOTOR
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IC317 CX925296 SPINDLE MOTOR
IC318 CX925297 INSIDE LIMIT SWITCH
IC319 CX925298 SPINDLE MOTOR
IC320 CX925299 INSIDE LIMIT SWITCH
IC321 CX925300 SPINDLE MOTOR
IC322 CX925301 INSIDE LIMIT SWITCH
IC323 CX925302 SPINDLE MOTOR
IC324 CX925303 INSIDE LIMIT SWITCH
IC325 CX925304 SPINDLE MOTOR
IC326 CX925305 INSIDE LIMIT SWITCH
IC327 CX925306 SPINDLE MOTOR
IC328 CX925307 INSIDE LIMIT SWITCH
IC329 CX925308 SPINDLE MOTOR
IC330 CX925309 INSIDE LIMIT SWITCH
IC331 CX925310 SPINDLE MOTOR
IC332 CX925311 INSIDE LIMIT SWITCH
IC333 CX925312 SPINDLE MOTOR
IC334 CX925313 INSIDE LIMIT SWITCH
IC335 CX925314 SPINDLE MOTOR
IC336 CX925315 INSIDE LIMIT SWITCH
IC337 CX925316 SPINDLE MOTOR
IC338 CX925317 INSIDE LIMIT SWITCH
IC339 CX925318 SPINDLE MOTOR
IC340 CX925319 INSIDE LIMIT SWITCH
IC341 CX925320 SPINDLE MOTOR
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IC343 CX925322 SPINDLE MOTOR
IC344 CX925323 INSIDE LIMIT SWITCH
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IC385 CX925364 SPINDLE MOTOR
IC386 CX925365 INSIDE LIMIT SWITCH
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IC413 CX925392 SPINDLE MOTOR
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IC415 CX925394 SPINDLE MOTOR
IC416 CX925395 INSIDE LIMIT SWITCH
IC417 CX925396 SPINDLE MOTOR
IC418 CX925397 INSIDE LIMIT SWITCH
IC419 CX925398 SPINDLE MOTOR
IC420 CX925





FL (9 - BT - 145GK) GRID ASSIGNMENT/ANODE CONNECTION

GRID ASSIGNMENT

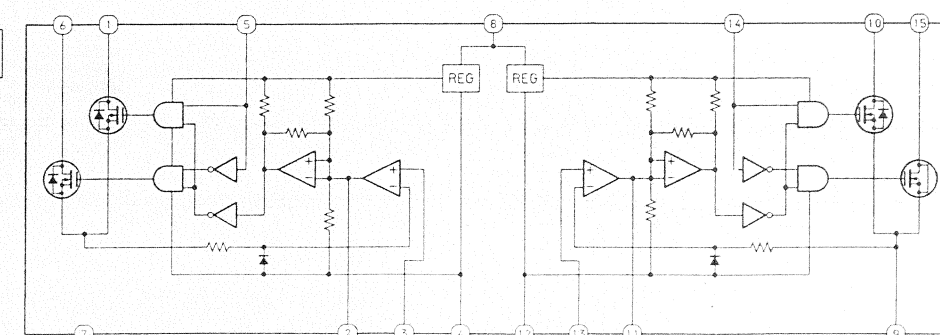


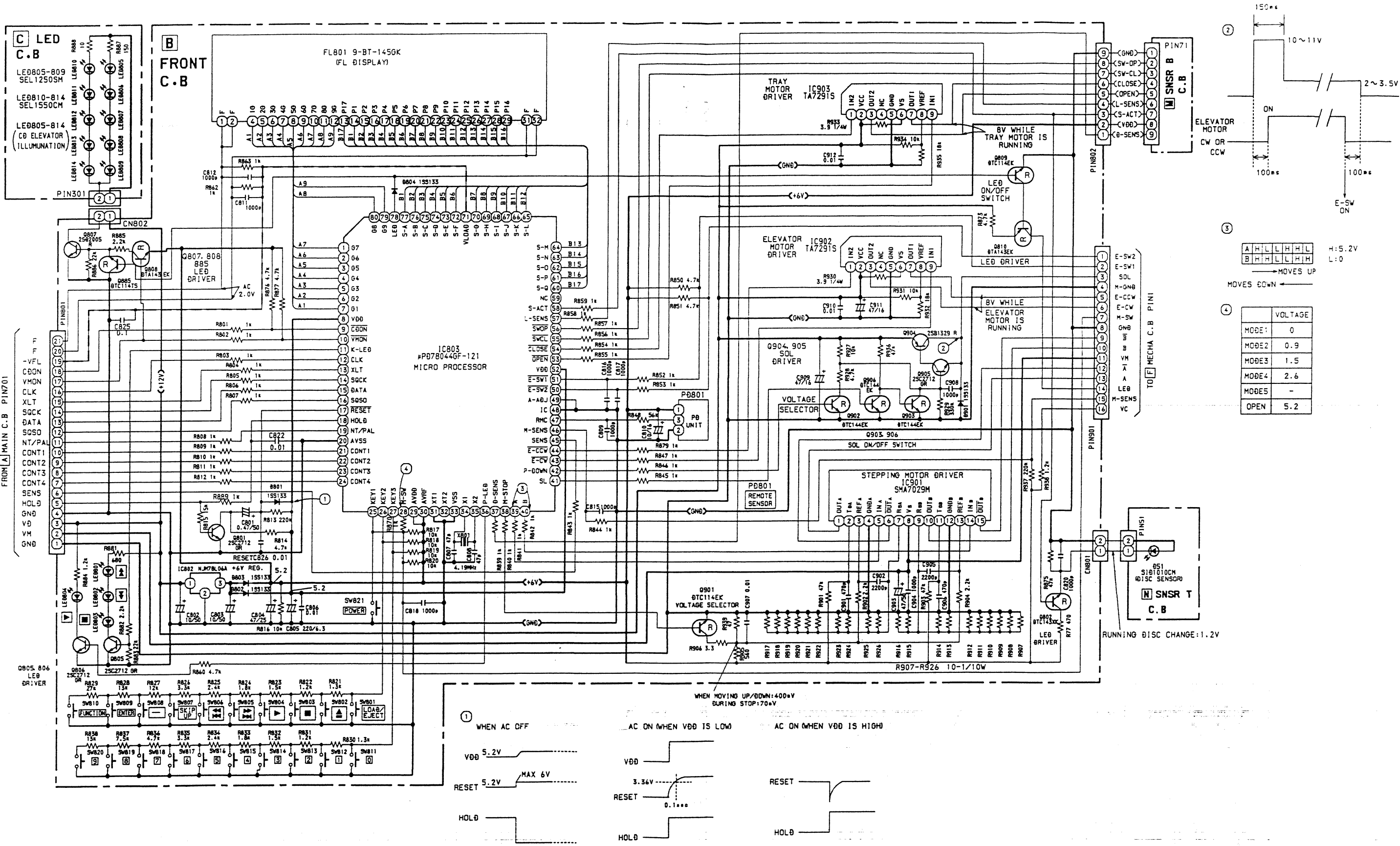
ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G
P1	1c	1a	a	a	a	a	a	1	6
P2	1b	1b	h	h	h	h	h	2	7
P3	1f	1f	j	j	j	j	j	3	8
P4	1g	1g	k	k	k	k	k	4	9
P5	1e	1e	b	b	b	b	b	5	10
P6	1e	1e	f	f	f	f	f	b	11
P7	2d	2d	m	m	m	m	m	#	12
P8	2c	2c	g	g	g	g	g	PRGM	13
P9	2b	2b	c	c	c	c	c	RANDOM	14
P10	2f	2f	e	e	e	e	e	AUTO	15
P11	2g	2g	r	r	r	r	r	↻	16
P12	2c	2c	p	p	p	p	p	ALL	17
P13	2e	2e	n	n	n	n	n	1DISC	18
P14	2d	2d	d	d	d	d	d	S2	19
P15	3b, 3c	3b, 3c	AM	—	SLEEP	—	—	—	20
P16	DISC NO.	TRCK NO.	PM	—	—	—	—	—	—
P17	—	—	—	—	—	—	—	S1	S1

IC BLOCK DIAGRAM

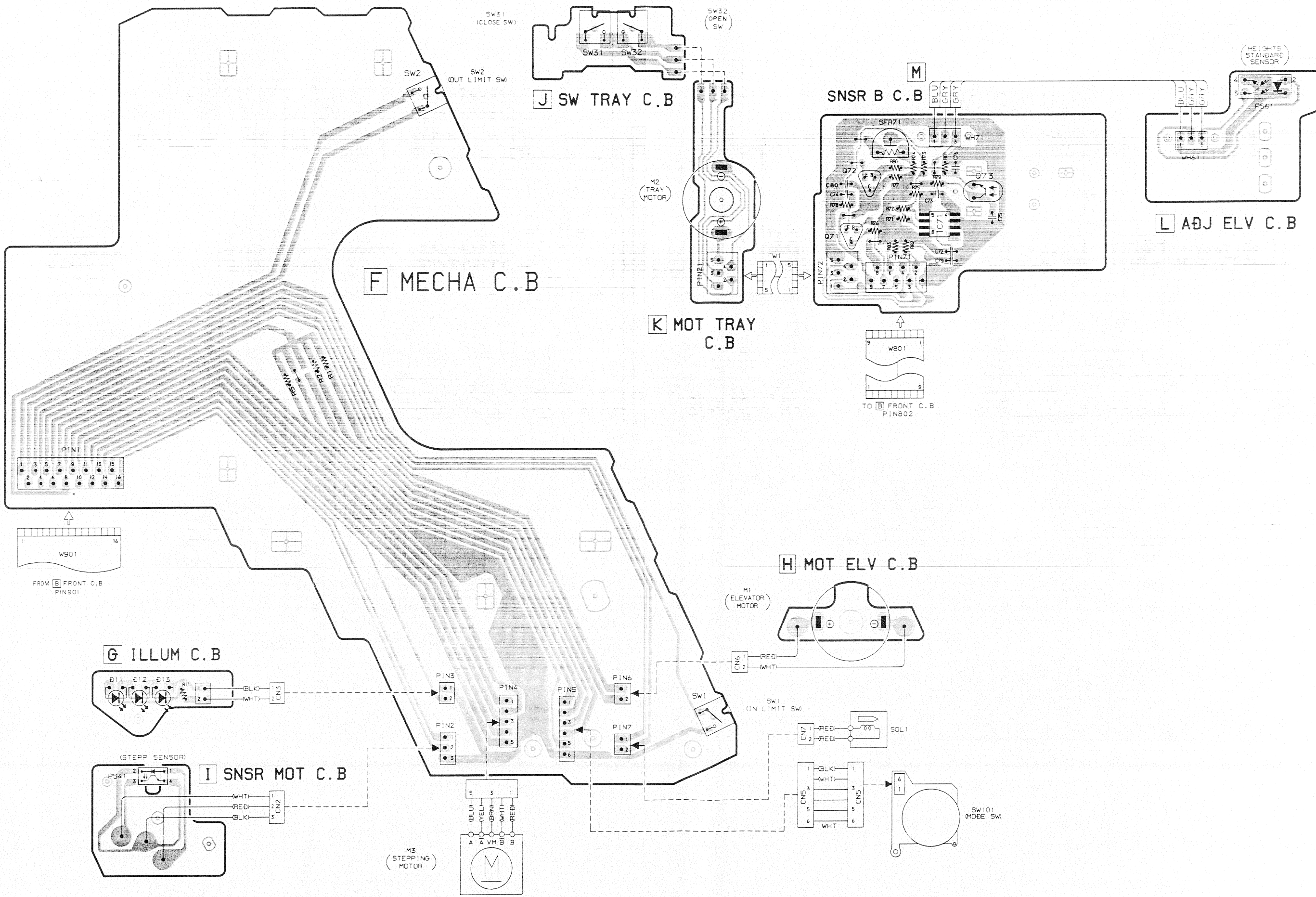
IC, SM7029M

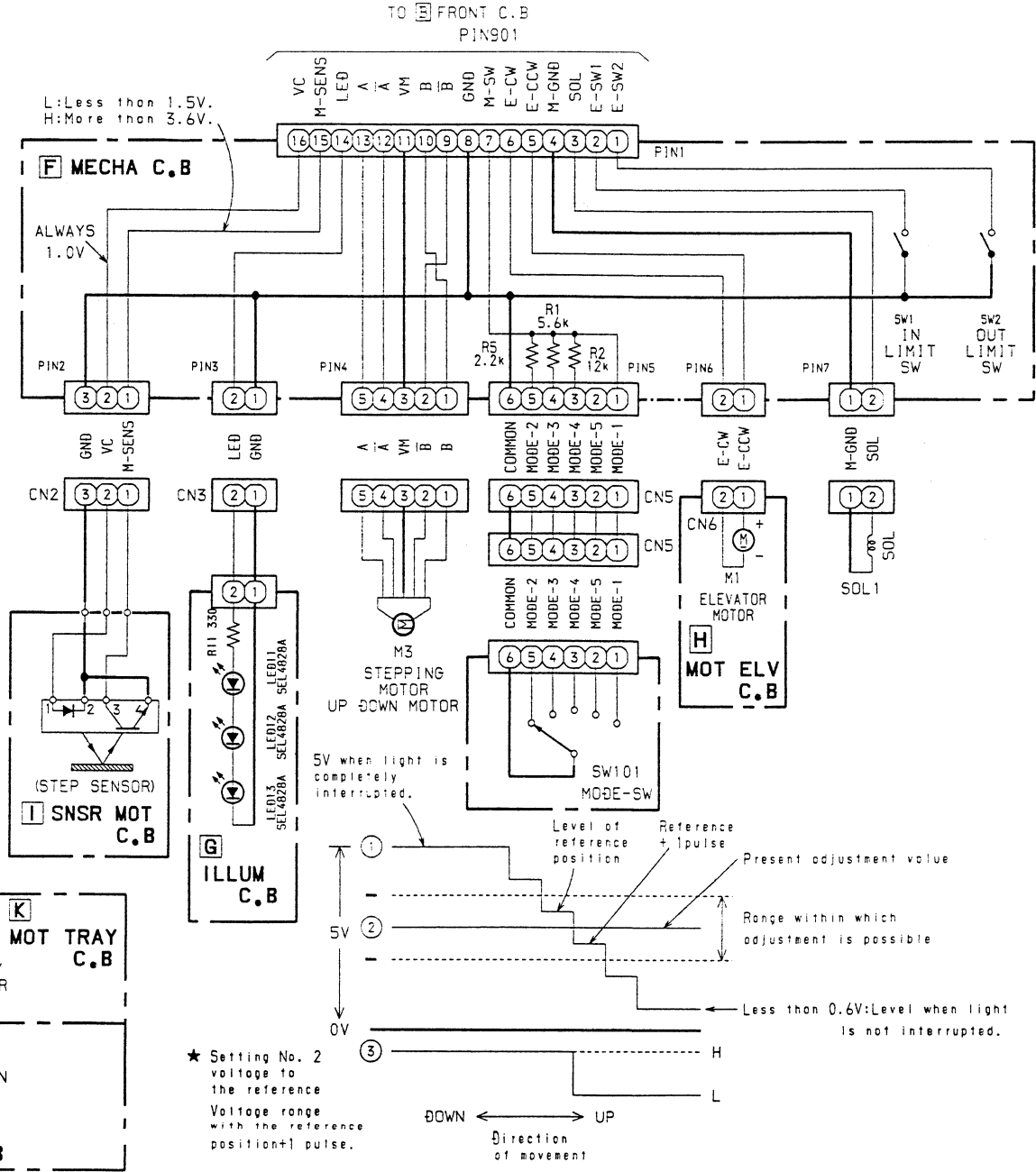
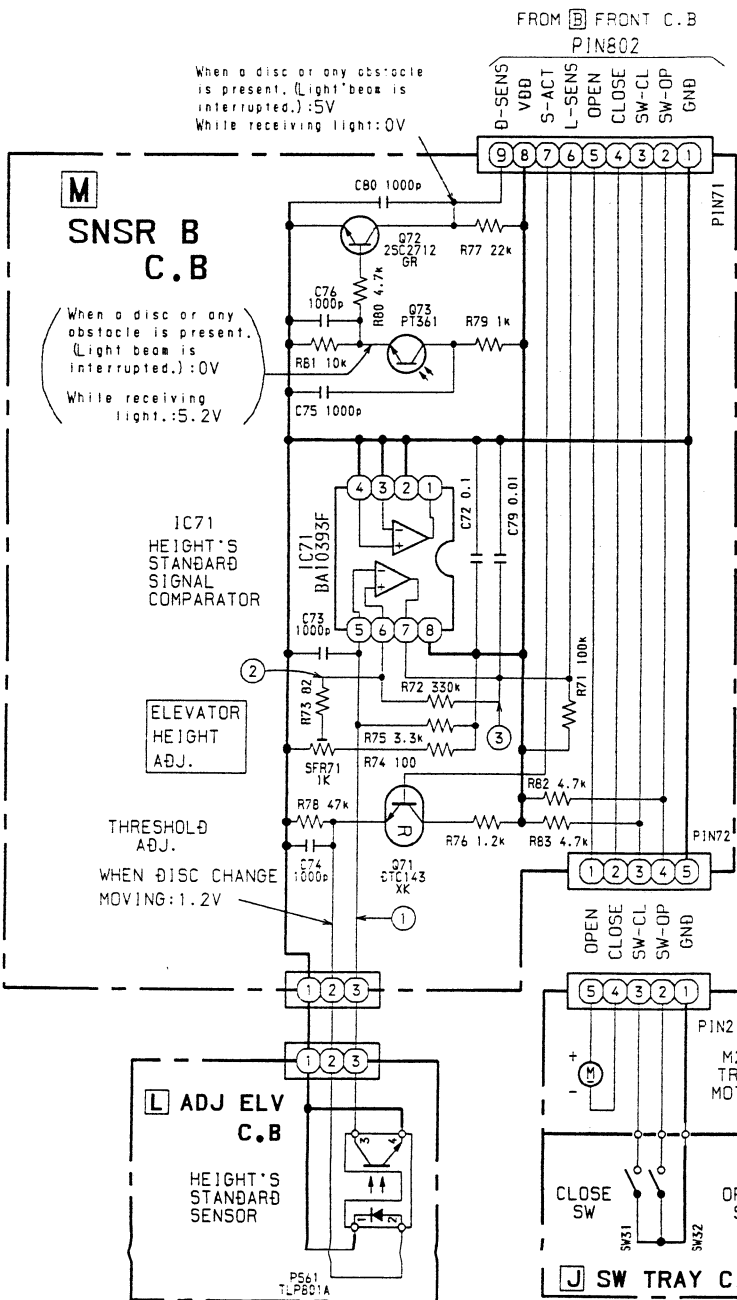




1 2 3 4 5 6 7 8 9 10 11 12 13 14

A
B
C
D
E
F
G
H
I
J
K





IC DESCRIPTION

IC: UPD78044-121

Pin No.	Pin Name	I/O	Description																									
1~7	G7~G1	O	FL display grid output.																									
8	VDD	—	Power supply pin.																									
9	CD ON	O	Power supply control of CD system IC (L: ON, H: OFF).																									
10	VMON	O	Power supply control of stepping motor (L: Power ON, L: Power OFF)																									
11	K-LED	O	Key illumination (◀, ▶, ■) control (H: ON by CD function, L: Others).																									
12	CLK	O	CD control signal clock output.																									
13	LT	O	CD control signal latch output.																									
14	SQCK	O	Subcode (Q) read-out clock output.																									
15	DATA	O	CD control data output.																									
16	SQSO	I	Subcode (Q) data.																									
17	RESET	—	Reset input.																									
18	HOLD	I	Power failure detection signal input. L: Power failure with hold mode.																									
19	NT/PAL	O	NTSC or PAL mode selection of CD graphics output. H: NTSC. L: PAL.																									
20	AVSS	—	Analog GND.																									
21	CONT1	O	Audio (CONT 1, 2) and video (CONT 3,4) function selection.		CD	AUX1	AUX2	MUTE																				
22	CONT2	O		CONT1	H	L	H	L																				
23	CONT3	O		CONT2	H	H	L	L																				
24	CONT4	O		CONT3	L	H	H	H																				
25~27	KEY1~KEY3	I	AUX2 does not support video input.	CONT4	L	L	H	H																				
28	M-SW	I	Key data input.																									
29	AVDD	—	Mode switch data input.																									
30	AVREF	I	Analog power supply.																									
31	XT1	I	Reference voltage input to analog power supply.																									
32	XT2	—	Sub system clock input																									
33	VSS	—	XT1 is connected to Vss.																									
34	X1	I	GND.																									
35	X2	—	Main system clock input.																									
36	P-LED	O	4.19 MHz oscillator is connected.																									
37	D-SENS	I	PLAY key illumination control pin. H: ON, L: OFF.																									
38	M-STOP	O	Disc sensor input. H: Disc is present. L: Disc is not present.																									
39	A	O	Stepping motor chopper current control. H: Stop, L: Up/Down movement																									
40	B	O	Stepping motor rotation control signal																									
41	SL	O	<table><tr><td colspan="2"></td><td colspan="2">Slow ←</td><td colspan="2">→ Fast</td></tr><tr><td>A</td><td>L</td><td>L</td><td>H</td><td>H</td><td>L</td><td>L</td></tr><tr><td>B</td><td>L</td><td>H</td><td>H</td><td>L</td><td>L</td><td>H</td></tr></table>								Slow ←		→ Fast		A	L	L	H	H	L	L	B	L	H	H	L	L	H
		Slow ←		→ Fast																								
A	L	L	H	H	L	L																						
B	L	H	H	L	L	H																						
42	P-DOWN	O	* Motor completes one rotation with 48 steps.																									
43	E-CW	O	* One stage of magazine consists of 18 steps.																									
44	E-CCW	O																										
45	SENS	I	Solenoid plunger ON/OFF control. H: ON, L: OFF. ON when disc catcher is moving.																									
46	M-SENS	I	Stepping motor rotation control signal																									
47	RMC	I	Direction in CW → MODE 5 → 1. Direction in catcher switch 2 → switch 1.																									
			Direction in CCW → MODE 1 → 5. Direction in catcher switch 1 → switch 2.																									
			SENS signal input from DSP.																									
			Toggles between L and H at every 2 steps.																									
			Remote control signal input.																									

Pin No.	Pin Name	I/O	Description
48	IC	—	Internally connected pin.
49	A-ADJ	I	CD automatic adjustment selection pin. H: Automatic, L: Manual. Fixed to Manual.
50	E-SW2	I	Catcher OUT-LIMIT detection switch. L: Most out track.
51	E-SW1	I	Catcher IN-LIMIT detection switch. L: Most in track.
52	VDD	—	Power supply pin.
53	OPEN	O	Tray open at "L".
54	CLOSE	O	Tray close at "L".
55	SWCL	I	Tray close detection switch. L: Close.
56	SWOP	I	Tray close detection switch. L: Open.
57	L-SENS	I	Elevator height reference position sensor signal input. The reference position when this signal goes from L to H.
58	S-ACT	O	ON/OFF control of the disc sensor and height reference position sensor. H: Active.
59	NC	—	Not connected.
60	S-Q	O	FL display segment output.
61	S-P	O	
62	S-O	O	
63	S-N	O	
64	S-M	O	
65	S-L	O	
66	S-K	O	
67	S-J	O	
68	S-I	O	
69	S-H	O	
70	S-G	O	
71	VLOAD	—	Power supply for FL display.
72	S-F	O	FL display segment output.
73	S-E	O	
74	S-D	O	
75	S-C	O	
76	S-B	O	
77	S-A	O	
78	LED	O	Illuminating LED ON/OFF control signal.
79	G9	O	FL Display grid output.
80	G8	O	

D-SENS.....Elevator cannot move up or down when this signal is High.

M-SENS.....If the number of input pulse is more than 1/2 of the actually output pulse, operation is normal.

IC, CXA1782BQ

Pin No.	Pin Name	I/O	Description
1	FEO	O	Focus error amplifier output pin. This pin is connected to the FZC comparator input internally.
2	FEI	I	Focus error input pin.
3	FDFCT	I	Capacitor connection pin for time constant used when there is defect.
4	FGD	I	Corrects the focus servo high frequency gain.
5	FLB	I	This is a pin where the time constant is externally connected to raise the low frequency gain of the focus servo.
6	FEO	O	Focus drive output.
7	FEM	I	Focus amplifier inverted input pin.
8	SRCH	I	This is a pin where the time constant is externally connected to generate the focus search waveform.
9	TGU	I	This is a pin where the selection time constant is externally connected to set the tracking servo the high frequency gain.
10	TG2	I	This is a pin where the selection time constant is externally connected to set the tracking high frequency gain.
11	FSET	I	Pin for setting peak of the phase compensator of the focus tracking.
12	TAM	I	Tracking amplifier inverted input pin.
13	TAO	O	Tracking drive output.
14	SLP	I	Sled amplifier non-inverted input pin.
15	SLM	I	Sled amplifier inverted input pin.
16	SLO	O	Sled drive output.
17	ISSET	I	The current which determines height of the focus search, track jump and sled kick is input.
18	VCC	—	+ 5 V power supply pin.
19	CLK	I	Serial data transfer clock input from DSP.
20	LT	I	Latch input from DSP.
21	DATA	I	Serial data input from DSP.
22	RST	I	Reset input pin. Reset at L.
23	COUT	O	Signal output to count the number of tracks.
24	SENS	O	FZC, DFCT, TZC, Gain or BAL is output depending on the command from DSP.
25	FOK	O	Output pin of the focus OK comparator.
26	CC2	O	Input pin where the DEFECT bottom hold output is capacitance coupled.
27	CC1	I	DEFECT bottom hold output pin.
28	CB	I	This is a pin where the DEFECT bottom hold capacitor is connected.
29	CP	I	This is a pin where the MIRR hold capacitor is connected and MIRR comparator non-inverted signal is input.
30	RFI	I	Input pin where the RF summing amplifier output is capacitance coupled.
31	RFO	O	RF summing amplifier output pin.
32	RFM	I	RF summing amplifier inverted input pin. Gain of RF amplifier is determined by the resistor connected between RFO and this pin. APC amplifier output pin.
33	LD	O	APC amplifier input pin.

Pin No.	Pin Name	I/O	Description
34	PHD	I	APC amplifier output pin.
35 ~ 36	PHD1 ~ 2	I	RF I-V amplifier inverted input pin. These pins are connected to the A+C and B+D pins of the optical pickup.
37	FE-BIAS	I	Bias adjustment pin of the non-inverted side of the focus error amplifier.
38 ~ 39	F ~ E	I	F and E I-V amplifier non-inverted input pins. These pins are connected to the F and E of the optical pickup.
40	EI	—	Gain adjustment pin of the I-V amplifier E.
41	VEE	—	GND connection pin
42	TEO	O	Tracking error amplifier output pin. E-F signal is output.
43	LPFI	I	BAL adjustment comparator input pin.
44	TEI	I	Tracking error input pin.
45	ATSC	I	Window comparator input pin for detecting ATSC.
46	TZC	I	Tracking zero-cross comparator input pin.
47	TDFCT	I	Capacitor connection pin for the time constant used when there is defect.
48	VC	O	DC voltage output pin of VREF. (VDD/2)

IC, CXD2518Q

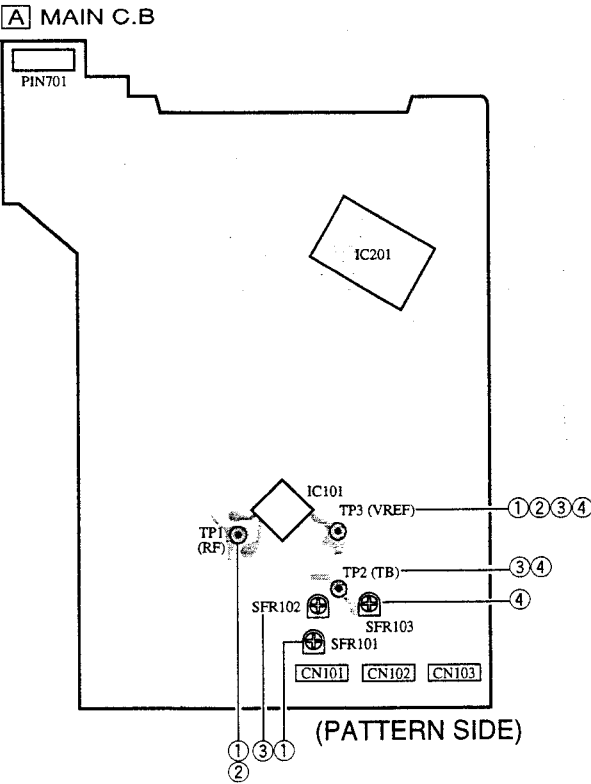
Pin No.	Pin Name	I/O	Description
1	SCOR	O	1H when the subcode sync S0 or S1 is detected.
2	SBSO	O	SUB P~W serial output.
3	EXCK	I	Clock input for SBSO read out.
4	SQSO	O	SUBQ 80-bit serial output.
5	SQCK	I	Clock input for SQSO read out.
6	MUTE	I	H to mute. L to cancel.
7	SENS	O	SENS signal output to CPU.
8	RST	I	System reset. L to reset.
9	DATA	I	Serial data input from CPU.
10	LAT	I	Latch input from CPU. Latching serial data at fall down.
11	CLOK	I	Clock input from CPU to transfer serial data.
12	VSS	—	GND.
13	SEIN	I	SENS input from SSP.
14	CNIN	I	Track jump number count signal input.
15	DATO	O	Serial data output to SSP.
16	LTO	O	Serial data latched output to SSP. Latched at fall down edge.
17	CLKO	O	Clock input from SSP to transfer serial data.
18	TEST2	I	TEST (VDD in normal use).
19~21	SPOB~D	I	Input from INSIDE LIMIT switch.
22	LON	O	Mute control output.
23	FOK	I	Focus OK input pin. Used for SENS output and servo auto sequencer.
24	MON	O	Spindle motor ON/OFF control output.
25	MDP	O	Spindle motor servo control output.
26	MDS	O	Spindle motor servo control output.
27	LOCK	O	GFS is sampled by 460Hz. H output when GFS is H. L output when GFS is L for 8 consecutive times.
28	TEST1	I	TEST (VDD in normal use).
29	FILO	O	Filter output to master PLL. (slave=digital PLL)
30	FILI	I	Filter input to master PLL.
31	PCO	O	Charge-pump output to master PLL.
32	VDD	—	Power supply input. For digital.
33	AVSS1	—	GND. For analog.
34	CLTV	I	VCO control voltage input to master PLL.
35	AVDD1	—	Power supply input. For analog.
36	RF	I	EFM signal input.
37	BIAS	I	Constant current input to asymmetry correction circuit.
38	ASYI	I	Compare voltage input to asymmetry correction circuit.
39	ASYO	O	EFM full swing output. (L=VSS, H=VDD)
40	ASYE	I	L: asymmetry correction OFF. H: asymmetry correction ON
41	WDCK	O	D/A interface, word clock (2Fs) for 48-bit slot.
42	LRCK	O	D/A interface, LR clock (Fs) for 48-bit slot.

Pin No.	Pin Name	I/O	Description
43	LRCKI	I	LR clock input to DAC. (48-bit slot)
44	PCMD	O	D/A interface, serial data. (2's complement, MSB first)
45	PCMDI	I	Audio data input to DAC. (48-bit slot)
46	BCK	O	D/A interface, bit clock.
47	BCKI	I	Bit clock input to DAC. (48-bit slot)
48	GTOP	O	GTOP output.
49	XUGF	O	XUGF output.
50	XPCK	O	XPLCK output.
51	GFS	O	GFS output.
52	RFCK	O	RFCK output.
53	VSS	—	GND.
54	C2PO	O	C2PO output.
55	XROF	O	XRAOF output.
56	MNT3	O	MNT3 output.
57	MNT1	O	MNT1 output.
58	MNT0	O	MNT0 output.
59	FSTT	O	Pins-73 and -74 divided-by 2/3 output.
60	C4M	O	4.2336MHz output.
61	DOUT	O	Digital Out connector output signal.
62	EMPH	O	H when the playback disc has emphasis. L when it does not.
63	EMPHI	I	DAC emphasis ON/OFF. H when ON. L when OFF
64	WFCK	O	WFCK (WRITE FRAME CLOCK) output.
65	ZEROL	O	No sound data detection output. H (L-ch) when no sound data is detected.
66	ZEROR	O	No sound data detection output. H (R-ch) when no sound data is detected.
67	DTSI	I	TEST for DAC.
68	VDD	—	Power supply input to DAC.
69	LPWM	O	L-ch PWM output. (normal polarity)
70	NLPWM	O	L-ch PWM output. (reversed polarity)
71	AVDD2	—	Power supply input to L-ch PWM driver.
72	AVDD3	—	Power supply input to X'tal.
73	XTAI	I	X'tal input to 33.8688MHz oscillator circuit.
74	XTAO	O	33.8688MHz X'tal oscillator circuit output.
75	AVSS3	—	GND input to X'tal.
76	AVSS2	—	GND input to PWM driver.
77	NRPWM	O	R-ch PWM output. (reversed phase)
78	RPWM	O	R-ch PWM output. (normal phase)
79	DTS2	I	TEST-2 for DAC. Normally "L".
80	DTS3	I	TEST-3 for DAC. Normally "L".

KEY INPUT A/D CONVERSION TABLE (IC801)

Input identifying voltage	KEY1 (25 PIN)	KEY2 (26 PIN)	KEY3 (27 PIN)	MODE SW (28 PIN)
5.20	Open	Open	Open	Open
4.71		CD/AUX		
4.28		ENTER	9	MODE 5
3.85		— (TRACK)	8	(Not used.)
3.43			7	
3.00		SKIP UP	6	MODE 4
2.57		FB/BS	5	
2.14		FF/FS	4	MODE 3
1.71		PLAY/PAUSE	3	
1.28		STOP	2	MODE 2
0.86		EJECT	1	
0.43				MODE 1
0	POWER	LOAD/EJECT	0	

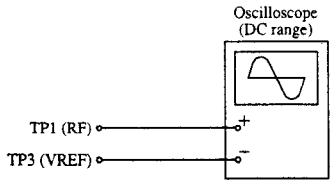
ELECTRICAL ADJUSTMENT



Note: Connect a probe (10: 1) of the oscilloscope or the frequency counter to a test point.

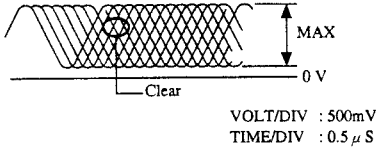
① Focus Bias Adjustment

Make the focus bias adjustment when replacing and repairing the optical block.



1. Connect an oscilloscope to test points TP1 (RF) and TP3 (VREF).
2. Turn on the power switch.

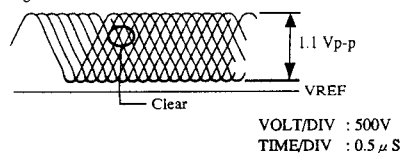
3. Insert test disc TCD-782 (YEDS-18) and play back the second composition.
4. Adjust SFR101 so that the level of RF wave to be maximum and clear.



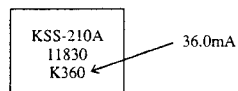
② RF Waveform Check
Perform this check when an optical block is replaced during repair.

1. Connect an oscilloscope to the test points TP1 (RF) and TP3 (VREF) as shown.
2. Turn on the main power.
3. Insert a test disc TCD-782 (YEDS-18), and press the ► PLAY button to play the second program.
4. Check that the waveform has the amplitude as shown below and is most clear.

RF Signal Waveform



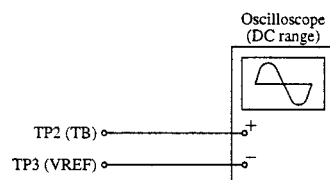
Note: The laser current can be checked from the voltages on both sides of R117 (10 Ω). The laser current value must fall within the range of ± 6.0 mA with respect to the current value shown on the label on the back of the laser pickup unit.



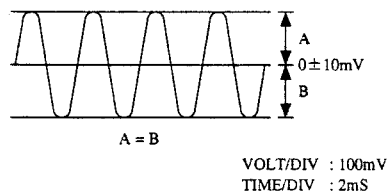
$$\text{Laser current lop} = \frac{\text{Voltage across R117}}{10\Omega}$$

VOLT/DIV : 500mV
TIME/DIV : 0.5 μ S

③ RADIAL Balance Adjustment



1. Connect an oscilloscope to test points TP2 (TB) and TP3 (VREF).
2. Turn on the power switch.
3. Insert test disc TCD-782 (YEDS-18) and press the PLAY ($\blacktriangleright$) button.
4. Keep pressing the $\boxtimes$ button to enter the SEARCH state.
5. Adjust SFR102 so that the waveform on the oscilloscope is vertically symmetrical as shown in the figure below.



④ RADIAL Gain Adjustment

A servo analyzer is necessary in order to perform this adjustment exactly. However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when 2-axis device operates. However, as these gains are reciprocated, the adjustment is performed so that both gains are satisfied.

- When gain is raised, the noise increases when the 2-axis device operates.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.

When the gain adjustment is not satisfied, the symptoms below appear.

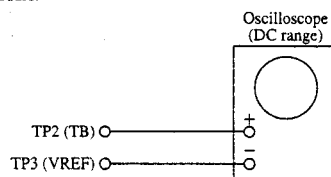
Symptoms	Gain (Focus)	Tracking
● The time until music starts becomes longer for STOP $\rightarrow$ PLAY or automatic selection ($\blacktriangleleft$, $\blacktriangleright$) buttons pressed.) (Normally takes about 2 seconds.)	low	low or high
● Music does not start and disc continues to rotate for STOP $\rightarrow$ PLAY or automatic selection ($\blacktriangleleft$, $\blacktriangleright$) buttons pressed.)	—	low
● Disc stops to rotate shortly after STOP $\rightarrow$ PLAY.	low or high	—
● Sound is interrupted during PLAY. Or time counter display stops.	—	low
● More noises during the 2-axis device operation.	high	high

The following is simple adjustment method.

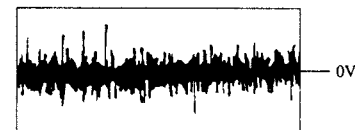
— Simple adjustment —

Note: Since the adjustment cannot be performed exactly, remember the positions of the controls before the adjustment and compare the adjusted position and the original position. If the difference is a little, return the control to the original position.

Procedure:



1. Keep the set horizontal. (If the set is not kept horizontally, this adjustment cannot be performed due to the gravity against the 2-axis device.)
2. Insert test disc TCD-782 (YEDS-18) and play back the second composition.
3. Connect an oscilloscope to TP3 (TB) of the main board.
4. Adjust SFR103 so that the waveform appears as shown in the figure below. (tracking gain adjustment)

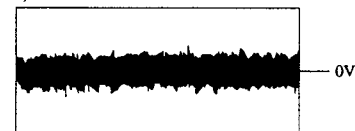


● Incorrect example

Low tracking gain
(The fundamental wave appears as compared with the waveform adjusted.)

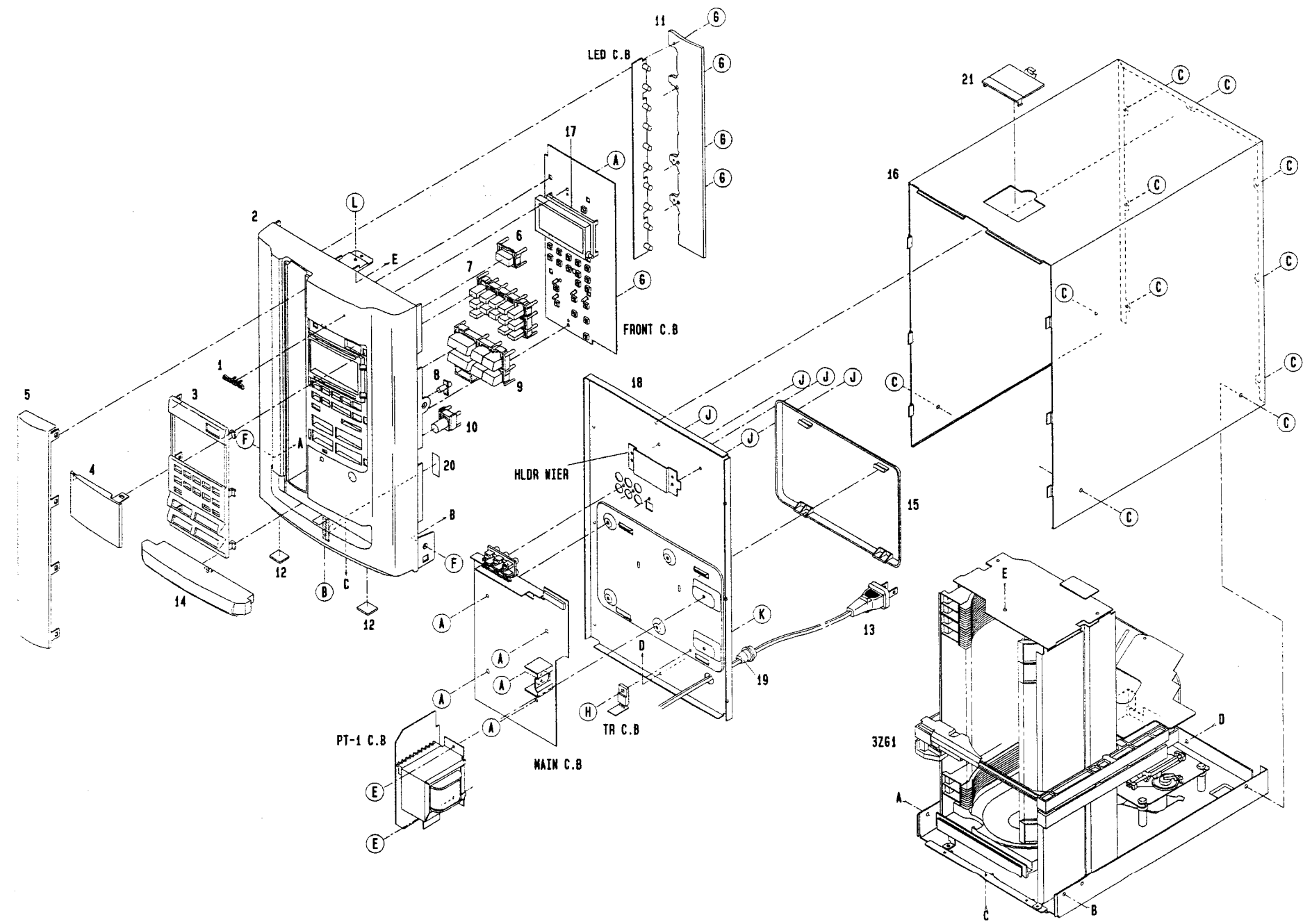


High tracking gain
(The frequency of the fundamental wave is higher than that in low gain.)



⑤ ELEVATOR Height Adjustment (SFR71)

An exclusive jig is necessary to execute this adjustment. Therefore never attempt this adjustment.

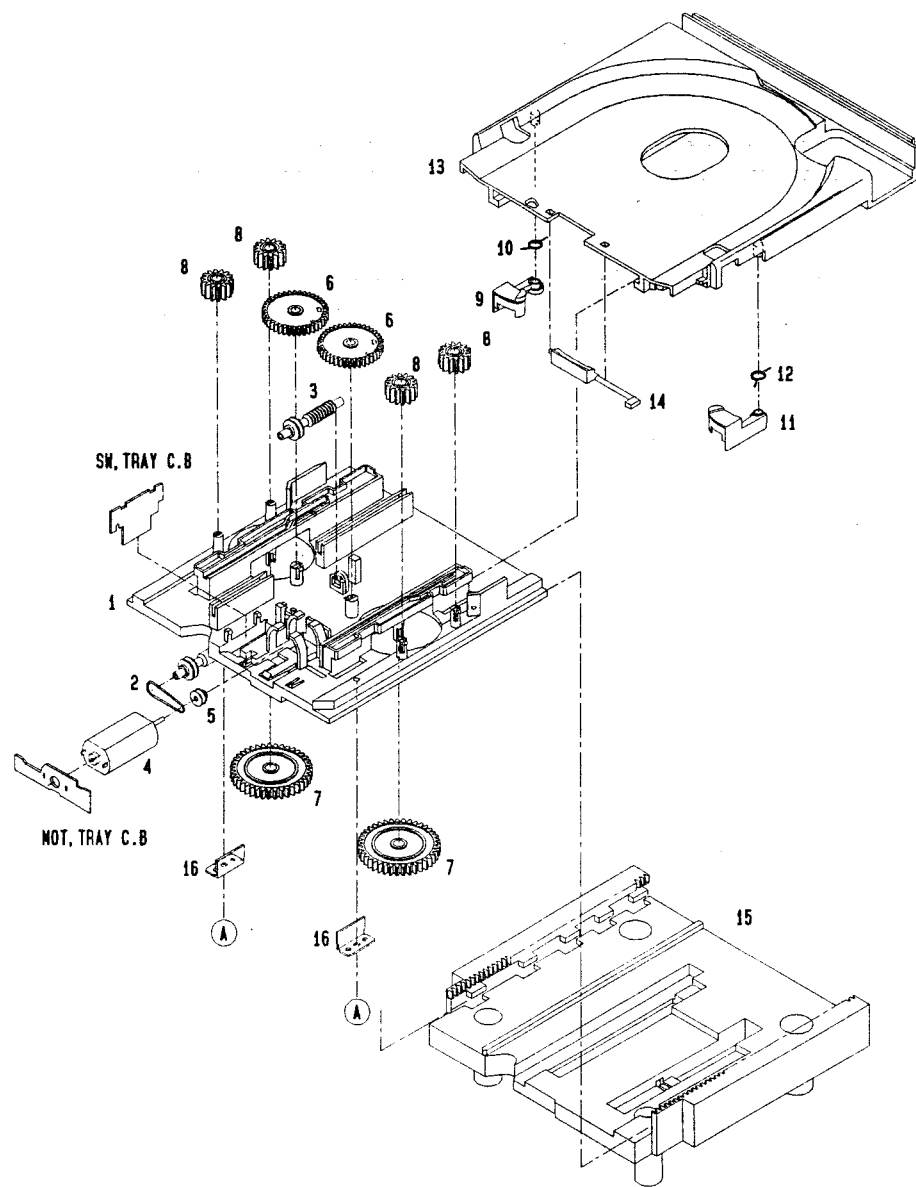


MECHANICAL PARTS LIST 1/1

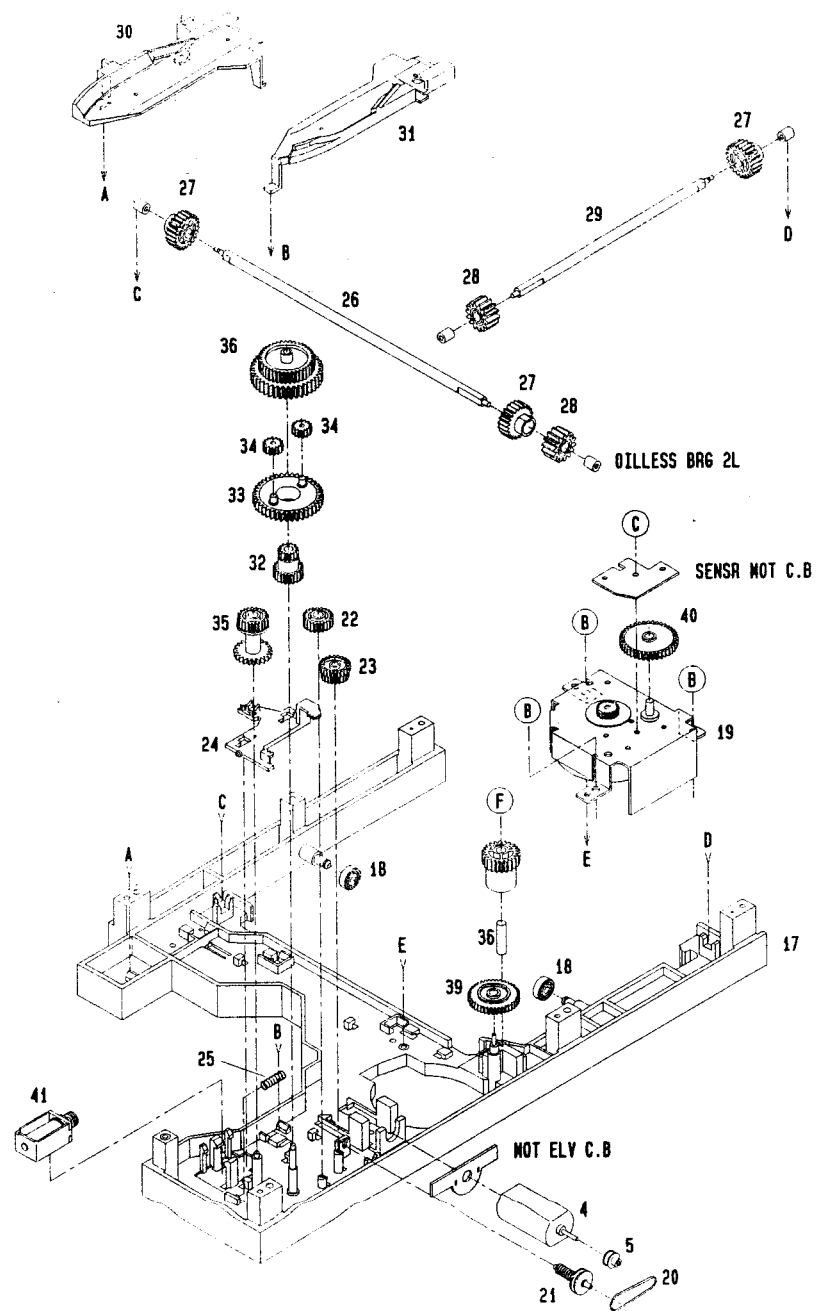
DESCRIPTIONで判断できない物は“REFERENCE NAME LIST”を参照してください。
If can't understand for Description please kindly refer to “REFERENCE NAME LIST”.

REF. NO	PART NO.	カナリ NO.	DESCRIPTION	REF. NO	PART NO.	カナリ NO.	DESCRIPTION
1	82-NE6-067-019		BADGE, AIWA 30N(*)	16	83-NM2-015-010		CAB, STEEL
2	83-NM2-001-010		CAB, FR	17	83-NM2-202-010		GUIDE, FL
3	83-NM2-005-010		PANEL, FR	18	83-NM2-014-010		PANEL, REAR EEZ (EEZ)
4	83-NM2-007-010		WINDOW, DISPLAY	18	83-NM2-013-010		PANEL, REAR HR (HR)
5	83-NM2-008-010		WINDOW, CD	19	87-085-185-010		BUSHING, AC CORD E
6	83-NM2-002-010		KEY, POWER	20	80-W01-209-010		CLOTH, 20-7
7	83-NM2-004-010		KEY, 10	21	83-NM2-018-010		COVER, TOP
8	83-WT4-014-019		LENS, SENSOR	A	87-067-579-010		BVT2+3-8W/O SLOT
9	83-NM2-003-010		KEY, OPE	B	87-593-094-410		QIT2+3-6BLK
10	83-NM2-006-010		KEY, SELECT	C	87-591-096-410		QIT+3-10
11	83-NM2-012-010		IND, 100	D	87-067-689-010		BVTT+3-8
12	80-VT1-202-019		FELT, 12. 5-15. 5-2	E	87-078-019-010		S-SCREW, 1T+4-6
△13	87-050-034-019		AC CORD ASSY, E	F	87-591-094-010		QIT+3-6 GOLD
14	83-NM2-009-010		PANEL, TRAY	G	87-067-703-010		BVT2+3-10 SLOT
15	83-NM2-010-010		COVER, PT	H	87-067-688-010		BVTT+3-6
				J	87-067-660-010		BVT2+3-8W/O SLOT BLK

MECHANISM EXPLODED VIEW 1/4



MECHANISM EXPLODED VIEW 2/4



MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	DESCRIPTION	REF. NO	PART NO.	DESCRIPTION
1	83-ZG1-291-010	TRAY, SLIDE	51	83-ZG3-211-010	PLATE, DISC
2	83-ZG1-323-110	BELT, MOT TRAY	52	83-ZG1-282-010	HOLDER, DISC
3	83-ZG1-267-010	GEAR, PULLEY-T	53	83-ZG1-249-010	GEAR, T
4	87-045-369-010	MOT, FF-050SH-09250	54	83-ZG1-227-110	PLATE ASSY, HTD-1
5	83-ZG1-268-010	PULLEY, TRAY	55	83-ZG1-208-010	PLATE ASSY, CATCH-2
6	83-ZG1-264-010	GEAR, T1	56	83-ZG1-293-310	CHAS, T
7	83-ZG1-265-010	GEAR, T2	57	83-ZG1-250-010	PULLEY
8	83-ZG1-266-010	GEAR, T3	58	83-ZG1-286-110	PLATE, PUSH
9	83-ZG1-281-010	ARM, TRAY-R	59	83-ZG1-234-210	PLATE, CD-SP1
10	83-ZG1-321-010	SPR-T, ARM TRAY R	60	83-ZG1-239-010	CHAS, R
11	83-ZG1-280-010	ARM, TRAY-L	61	83-ZG1-273-010	RACK, 2
12	83-ZG1-320-010	SPR-T, ARM TRAY L	62	83-ZG1-272-010	RACK, 1
13	83-ZG1-292-010	TRAY	63	83-ZG1-276-110	MAGAZINE, R
14	83-ZG1-278-110	STOPPER, DISC	64	83-ZG1-207-010	PLATE, MAGAZINE-2
15	83-ZG1-290-010	BASE, TRAY	65	83-ZG1-210-010	PLATE, MAGAZINE
16	83-ZG1-307-010	PLATE, STOP TRAY	66	83-ZG1-233-310	BASE, ASSY
17	83-ZG1-294-110	CHAS, B	67	80-CD3-214-019	CUSH CD A
18	83-ZG1-271-010	ROLLER, MAGAZINE	68	81-ZG1-271-010	S-SCREW, MECH REAR
19	83-ZG1-302-010	MOT ASSY, STEP	69	83-ZG1-002-010	COVER, LED
20	83-ZG1-300-010	BELT, MOT	70	83-ZG1-235-010	CHAS, TOP
21	83-ZG1-270-010	WORM	71	83-ZG1-238-010	CHAS, L
22	83-ZG1-255-010	GEAR, U44	72	83-ZG1-274-010	RACK, 3
23	83-ZG1-269-010	WORM-WHL	73	83-ZG1-611-010	COVER, SNSR
24	83-ZG1-287-110	PLATE, STOP22 (*)	74	83-ZG1-275-110	MAGAZINE, L
25	83-ZG1-317-110	SPR-C, STOP22	75	83-ZG1-295-110	COVER, MAGAZINE
26	83-ZG1-243-010	SFT, PIN1-2	76	83-ZG1-205-010	PAD, ASSY, CATCH
27	83-ZG1-262-110	GEAR, P1	77	83-ZG1-201-010	PLATE ASSY, CATCH-3
28	83-ZG1-261-010	GEAR, U6	78	83-ZG1-319-110	SPR-T, CATCH
29	83-ZG1-242-010	SFT, PIN1-1	79	83-ZG1-241-010	SFT, CATCH-9
30	83-ZG1-288-010	TRAY, SUB-L	80	83-ZG1-245-010	ROLLER, CATCH-3
31	83-ZG1-289-010	TRAY, SUB-R	81	83-ZG1-220-110	PLATE ASSY, CATCH-5
32	83-ZG1-251-010	GEAR, U1	82	83-ZG1-246-010	ROLLER, CATCH-7
33	83-ZG1-252-010	GEAR, U2	83	83-ZG1-244-010	ROLLER, CATCH-2
34	83-ZG1-254-010	GEAR, U4	84	83-ZG1-316-010	SPR-C, CATCHER
35	83-ZG1-256-010	GEAR, U5	85	83-ZG1-214-010	PLATE ASSY, CATCH-4
36	83-ZG1-253-010	GEAR, U3	A	87-067-421-010	VTT12-4
37	83-ZG1-230-010	SFT, U04	B	87-067-659-010	BYT12+2, 6-8W/ SOLT B
38	83-ZG1-260-010	GEAR, U04	C	87-261-032-410	V12-3 GLD
39	83-ZG1-259-010	GEAR, U03	D	87-163-034-410	VFT12+2, 5 BLK
40	83-ZG1-258-010	GEAR, U02	E	87-078-152-010	VFT12+2-14
41	87-045-370-010	SOL, JPM1237	F	87-078-170-010	LW, 3, 65-6-0, 188
42	83-ZG1-001-010	IND, LED	H	87-067-938-010	PW, 1, 3-3-0, 25 SLT
43	83-ZG1-301-110	SW, MODE	I	86-544-440-010	PW, 1, 2-4-0, 25 SLT
44	83-ZG1-263-010	CAM, MAIN	J	87-067-858-010	PW, 0, 83-2, 0-0, 25 SLT
45	83-ZG1-285-010	SLD, 12-8	K	87-067-800-010	PW, 1, 5-3, 5-0, 25 SLT
46	83-ZG1-283-010	LVR, 12-8	M	87-353-076-210	VT2+2, 6-12
47	83-ZG1-284-210	LVR, PUSH (*)	N	87-067-189-010	BYT13B12, 6-8
48	83-ZG1-322-010	SPR-C, LVR-ADJ	O	87-078-167-010	SCREW, 12-3 B-TIGHT
49	83-ZG1-318-210	SPR-T, LVR PUSH	P	87-067-020-010	VTT13-4
50	83-ZG3-602-010	RING, MAG	R	87-067-098-010	VTT13-5 BLK

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER
サージサプレッサ	SERGESUPPRESSOR
セラコン	CAP, CERA

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL
ジグアーム	ARM, SHAFT
ジグガイド	GUIDE, SHAFT
ストラップ	STRAP
トクナベ	S-SCREW
ピンジ	HINGE
ピンジビス	S-SCREW
ビスセレート	SCREW, SERRART